

The Art and Science of Planetary Mapping

Specific Seminar – Curriculum 3

2026, November 18, 9:30 a.m.

Speaker:
Dr. Alessandro Frigeri - National Institute for Astrophysics - Institute of Space Astrophysics and Planetology

Abstract:
Planetary mapping builds the bridge between instrumental observations and scientific knowledge of the bodies of the Solar System. This seminar follows the path of information, from the acquisition and processing of imaging, topography and spectroscopy data to their integration into specialized products such as thematic or geologic maps. Through examples from recent missions, we will see how mapping allows us not only to present and integrate new measurements, but also to understand the evolution of celestial bodies in space and time. Planetary mapping is also the tool for planning new missions and ensuring the safety and success of future exploration. The talk also offers an overview of the research opportunities open to students of the Planetary Sciences curriculum.

Short Bio:
Alessandro Frigeri holds a PhD in Geology. His professional experience spans industry, academia and planetary exploration, including work at ENI/Agip, several universities and the United States Geological Survey. Since 2010, he has been a researcher at INAF-IAPS in Rome and a member of the science teams of ESA and NASA missions exploring bodies across the Solar System. For 2026–2027, he is a member of NASA's Lunar Mapping Program (LMAP), which is developing the next generation of geologic maps of the Moon.

Online attendance:
Information on remote participation can be requested by sending an e-mail to dn_sst@unitn.it

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